

## P A T E N T COOPERATION TREATY

PCT

NOTIFICATION CONCERNING  
SUBMISSION OR TRANSMITTAL  
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

WATANABE, Takeo  
Yushima Lemie Building, 3rd Floor  
21-15, Yushima 3-chome  
Bunkyo-ku, Tokyo 113-0034  
JAPON

Date of mailing (day/month/year) 14 June 2000 (14.06.00)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference 0008PCT	
International application No. PCT/JP00/02361	
International publication date (day/month/year) Not yet published	
International filing date (day/month/year) 12 April 2000 (12.04.00)	
Priority date (day/month/year) 12 April 1999 (12.04.99)	
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA et al	

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk(\*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
12 Apr 1999 (12.04.99)	11/104551	JP	05 June 2000 (05.06.00)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer  Taïeb Akremi
	Telephone No. (41-22) 338.83.38

## PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C.20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing: 19 October 2000 (19.10.00)	
International application No.: PCT/JP00/02361	Applicant's or agent's file reference: 0008PCT
International filing date: 12 April 2000 (12.04.00)	Priority date: 12 April 1999 (12.04.99)
Applicant: MURAKAMI, Katsuya et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International preliminary Examining Authority on:  
12 April 2000 (12.04.00)☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer:  J. Zahra Telephone No.: (41-22) 338.83.38
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# PATENT COOPERATION TREATY

PCT

## NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

WATANABE, Takeo  
Yushima Lemie Building, 3rd Floor  
21-15, Yushima 3-chome  
Bunkyo-ku, Tokyo 113-0034  
JAPON

Date of mailing (day/month/year) 19 October 2000 (19.10.00)		IMPORTANT NOTICE	
Applicant's or agent's file reference 0008PCT			
International application No. PCT/JP00/02361	International filing date (day/month/year) 12 April 2000 (12.04.00)	Priority date (day/month/year) 12 April 1999 (12.04.99)	
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA et al			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:  
CN,EP,IN,JP

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 19 October 2000 (19.10.00) under No. WO 00/62312

### REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

### REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. (41-22) 740.14.35</p>	<p>Authorized officer J. Zahra</p> <p>Telephone No. (41-22) 338.83.38</p>
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P C T

## 国際調査報告

(法 8 条、法施行規則第40、41条)  
〔P C T 1 8 条、P C T 規則43、44〕

出願人又は代理人 の書類記号 0008PCT	今後の手続きについては、国際調査報告の送付通知様式(PCT/ISA/220) 及び下記5を参照すること。	
国際出願番号 PCT/JP00/02361	国際出願日 (日.月.年) 12.04.00	優先日 (日.月.年) 12.04.99
出願人 (氏名又は名称) トヨタ自動車株式会社		

国際調査機関が作成したこの国際調査報告を法施行規則第41条 (PCT 18条) の規定に従い出願人に送付する。  
この写しは国際事務局にも送付される。

この国際調査報告は、全部で 3 ページである。

☐ この調査報告に引用された先行技術文献の写しも添付されている。

## 1. 国際調査報告の基礎

- a. 言語は、下記に示す場合を除くほか、この国際出願がされたものに基づき国際調査を行った。  
☐ この国際調査機関に提出された国際出願の翻訳文に基づき国際調査を行った。
- b. この国際出願は、ヌクレオチド又はアミノ酸配列を含んでおり、次の配列表に基づき国際調査を行った。  
☐ この国際出願に含まれる書面による配列表  
☐ この国際出願と共に提出されたフレキシブルディスクによる配列表  
☐ 出願後に、この国際調査機関に提出された書面による配列表  
☐ 出願後に、この国際調査機関に提出されたフレキシブルディスクによる配列表  
☐ 出願後に提出した書面による配列表が出願時における国際出願の開示の範囲を超える事項を含まない旨の陳述書の提出があった。  
☐ 書面による配列表に記載した配列とフレキシブルディスクによる配列表に記載した配列が同一である旨の陳述書の提出があった。

2. ☐ 請求の範囲の一部の調査ができない (第 I 欄参照)。

3. ☐ 発明の単一性が欠如している (第 II 欄参照)。

4. 発明の名称は ☒ 出願人が提出したものを承認する。  
☐ 次に示すように国際調査機関が作成した。

5. 要約は ☒ 出願人が提出したものを承認する。  
☐ 第 III 欄に示されているように、法施行規則第47条 (PCT 規則38.2(b)) の規定により国際調査機関が作成した。出願人は、この国際調査報告の発送の日から 1 カ月以内にこの国際調査機関に意見を提出することができる。

6. 要約書とともに公表される図は、  
 第 4 図とする。 ☐ 出願人が示したとおりである。 ☐ なし  
☐ 出願人は図を示さなかった。  
☒ 本図は発明の特徴を一層よく表している。

## A. 発明の属する分野の分類 (国際特許分類 (IPC))

Int. Cl.<sup>7</sup> H01F5/00, 5/06, H02K3/50, H01M8/02,  
B29C45/16, B29L31:34

## B. 調査を行った分野

## 調査を行った最小限資料 (国際特許分類 (IPC))

Int. Cl.<sup>7</sup> H01F5/00, 5/06, H02K3/50, H01M8/02,  
B29C45/16, B29L31:34, F02M55/02, F02M51/06

## 最小限資料以外の資料で調査を行った分野に含まれるもの

日本国実用新案公報 1922-1996年  
日本国公開実用新案公報 1971-2000年  
日本国実用新案登録公報 1995-2000年  
日本国登録実用新案公報 1994-2000年

## 国際調査で使用した電子データベース (データベースの名称、調査に使用した用語)

## C. 関連すると認められる文献

引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
X Y A	JP, 11-97270, A (ティーディーケイ株式会社), 9. 4月. 1999 (09. 04. 99), 全文, 第1-5図 (ファミリーなし)	1-2 4 3, 5, 9-10
Y	JP, 6-333580, A (三菱重工株式会社), 2. 12月. 1994 (02. 12. 94), 全文, 第1図 (ファミリーなし)	6-7

☒ C欄の続きにも文献が列挙されている。☐ パテントファミリーに関する別紙を参照。

## \* 引用文献のカテゴリー

「A」特に関連のある文献ではなく、一般的技術水準を示すもの  
「E」国際出願日前の出願または特許であるが、国際出願日以後に公表されたもの  
「L」優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献 (理由を付す)  
「O」口頭による開示、使用、展示等に言及する文献  
「P」国際出願日前で、かつ優先権の主張の基礎となる出願

## の日の後に公表された文献

「T」国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの  
「X」特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの  
「Y」特に関連のある文献であって、当該文献と他の1以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの  
「&」同一パテントファミリー文献

国際調査を完了した日

14. 07. 00

国際調査報告の発送日

01.08.00

国際調査機関の名称及びあて先

日本国特許庁 (ISA/JP)

郵便番号 100-8915

東京都千代田区霞が関三丁目4番3号

特許庁審査官 (権限のある職員)

重田 尚郎

5R

2950

電話番号 03-3581-1101 内線 3565

C (続き). 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
Y	J P, 5-269786, A (東芝ケミカル株式会社), 19. 10月. 1993 (19. 10. 93), 全文, 第1-8図 (ファミリーなし)	8 11-13
Y	J P, 10-103191, A (愛三工業株式会社), 21. 4月. 1998 (21. 04. 98), 全文, 第1-2図 (ファミリーなし)	11-13

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## 国際予備審査報告

(法第12条、法施行規則第56条)  
(PCT36条及びPCT規則70)

REC'D 28 NOV 2000

WIPO PCT

出願人又は代理人 の書類記号 0008PCT	今後の手続きについては、国際予備審査報告の送付通知(様式PCT/ IPEA/416)を参照すること。	
国際出願番号 PCT/JPO0/02361	国際出願日 (日.月.年) 12.04.00	優先日 (日.月.年) 12.04.99
国際特許分類(IPC) H01F5/00, 5/06, H02K3/50, H01M8/02, Int.Cl <sup>7</sup> B29C45/16, B29L31:34		
出願人(氏名又は名称) トヨタ自動車株式会社		

1. 国際予備審査機関が作成したこの国際予備審査報告を法施行規則第57条(PCT36条)の規定に従い送付する。
2. この国際予備審査報告は、この表紙を含めて全部で 4 ページからなる。
- ☐ この国際予備審査報告には、附属書類、つまり補正されて、この報告の基礎とされた及び/又はこの国際予備審査機関に対してした訂正を含む明細書、請求の範囲及び/又は図面も添付されている。  
(PCT規則70.16及びPCT実施細則第607号参照)  
この附属書類は、全部で                      ページである。
3. この国際予備審査報告は、次の内容を含む。
- I ☒ 国際予備審査報告の基礎
- II ☐ 優先権
- III ☐ 新規性、進歩性又は産業上の利用可能性についての国際予備審査報告の不作成
- IV ☐ 発明の単一性の欠如
- V ☒ PCT35条(2)に規定する新規性、進歩性又は産業上の利用可能性についての見解、それを裏付けるための文献及び説明
- VI ☐ ある種の引用文献
- VII ☐ 国際出願の不備
- VIII ☐ 国際出願に対する意見

国際予備審査の請求書を受理した日 12.04.00	国際予備審査報告を作成した日 13.11.00	
名称及びあて先 日本国特許庁(IPEA/JP) 郵便番号100-8915 東京都千代田区霞が関三丁目4番3号	特許庁審査官(権限のある職員) 重田 尚郎 電話番号 03-3581-1101 内線 3565	5R 2950

## I. 国際予備審査報告の基礎

1. この国際予備審査報告は下記の出願書類に基づいて作成された。(法第6条(PCT14条)の規定に基づく命令に  
 応答するために提出された差し替え用紙は、この報告書において「出願時」とし、本報告書には添付しない。  
 PCT規則70.16, 70.17)

☒ 出願時の国際出願書類

- ☐ 明細書 第 \_\_\_\_\_ ページ、 出願時に提出されたもの  
 明細書 第 \_\_\_\_\_ ページ、 国際予備審査の請求書と共に提出されたもの  
 明細書 第 \_\_\_\_\_ ページ、 \_\_\_\_\_ 付の書簡と共に提出されたもの
- ☐ 請求の範囲 第 \_\_\_\_\_ 項、 出願時に提出されたもの  
 請求の範囲 第 \_\_\_\_\_ 項、 PCT19条の規定に基づき補正されたもの  
 請求の範囲 第 \_\_\_\_\_ 項、 国際予備審査の請求書と共に提出されたもの  
 請求の範囲 第 \_\_\_\_\_ 項、 \_\_\_\_\_ 付の書簡と共に提出されたもの
- ☐ 図面 第 \_\_\_\_\_ ページ/図、 出願時に提出されたもの  
 図面 第 \_\_\_\_\_ ページ/図、 国際予備審査の請求書と共に提出されたもの  
 図面 第 \_\_\_\_\_ ページ/図、 \_\_\_\_\_ 付の書簡と共に提出されたもの
- ☐ 明細書の配列表の部分 第 \_\_\_\_\_ ページ、 出願時に提出されたもの  
 明細書の配列表の部分 第 \_\_\_\_\_ ページ、 国際予備審査の請求書と共に提出されたもの  
 明細書の配列表の部分 第 \_\_\_\_\_ ページ、 \_\_\_\_\_ 付の書簡と共に提出されたもの

2. 上記の出願書類の言語は、下記に示す場合を除くほか、この国際出願の言語である。

上記の書類は、下記の言語である \_\_\_\_\_ 語である。

- ☐ 国際調査のために提出されたPCT規則23.1(b)にいう翻訳文の言語  
☐ PCT規則48.3(b)にいう国際公開の言語  
☐ 国際予備審査のために提出されたPCT規則55.2または55.3にいう翻訳文の言語

3. この国際出願は、ヌクレオチド又はアミノ酸配列を含んでおり、次の配列表に基づき国際予備審査報告を行った。

- ☐ この国際出願に含まれる書面による配列表  
☐ この国際出願と共に提出されたフレキシブルディスクによる配列表  
☐ 出願後に、この国際予備審査(または調査)機関に提出された書面による配列表  
☐ 出願後に、この国際予備審査(または調査)機関に提出されたフレキシブルディスクによる配列表  
☐ 出願後に提出した書面による配列表が出願時における国際出願の開示の範囲を超える事項を含まない旨の陳述書の提出があった  
☐ 書面による配列表に記載した配列とフレキシブルディスクによる配列表に記録した配列が同一である旨の陳述書の提出があった。

4. 補正により、下記の書類が削除された。

- ☐ 明細書 第 \_\_\_\_\_ ページ  
☐ 請求の範囲 第 \_\_\_\_\_ 項  
☐ 図面 図面の第 \_\_\_\_\_ ページ/図

5. ☐ この国際予備審査報告は、補充欄に示したように、補正が出願時における開示の範囲を越えてされたものと認められるので、その補正がされなかったものとして作成した。(PCT規則70.2(c) この補正を含む差し替え用紙は上記1.における判断の際に考慮しなければならず、本報告に添付する。)



V. 新規性、進歩性又は産業上の利用可能性についての法第12条(PCT35条(2))に定める見解、それを裏付ける文献及び説明

1. 見解

新規性(N)	請求の範囲	3-13	有
	請求の範囲	1-2	無
進歩性(IS)	請求の範囲	3, 5, 9, 10	有
	請求の範囲	1-2, 4, 6-8, 11-13	無
産業上の利用可能性(IA)	請求の範囲	1-13	有
	請求の範囲		無

2. 文献及び説明(PCT規則70.7)

請求の範囲1-2

文献1: JP, 11-97270, A (ティーディーケー株式会社),  
9.4月.1999(09.04.99), 全文, 第1図  
には、通電部が導電体と樹脂等との混合物で、螺旋状に形成されたコイルが記載されている。

請求の範囲4

文献1には、通電部が導電体と樹脂等との混合物で、螺旋状に形成されたコイルが記載されている。なお、文献1の技術をモータのステータやロータ等のコイルに適用させることは、当業者であれば容易に成し得たことである。

請求の範囲6-7

文献2: JP, 6-333580, A (三菱重工株式会社),  
2.12月.1994(02.12.94), 全文, 第1図  
には、導電性樹脂等で構成され、反応ガスの流入、流出用の穴及び反応ガスの流れる溝が両面に形成された燃料電池のセパレータが記載されている。なお、燃料電池のセパレータを電解質を挟んで利用することは、当該技術分野における周知技術である。

請求の範囲8

文献3: JP, 5-269786, A (東芝ケミカル株式会社),  
19.10月.1993(19.10.93), 全文, 第1-8図  
には、導電性繊維及び低融点金属を含有する熱可塑性樹脂を、射出形成金型に射出流入して、固化し、導電体を成形する導電性長尺成型品の製造方法が記載されている。

請求の範囲11-13

文献3には、導電性繊維及び低融点金属を含有する熱可塑性樹脂で成形された導電体を、絶縁層によって被覆する技術が記載されている。

補充欄 (いずれかの欄の大きさが足りない場合に使用すること)

## 第 V.2 欄の続き

文献4: JP, 10-103191, A (愛三工業株式会社),  
21. 4月. 1998 (21. 04. 98), 全文, 第1-2図  
には、外部端子に電氣的に接続する接続部を有し、導電部材をハウジングに一体的に收容する燃料分配管が記載されている。

文献4の燃料分配管の構造に文献3の技術を適用し、導電性樹脂を絶縁層によって被覆して、導電部を燃料分配管と一体的に形成することは、当業者であれば容易に成し得たことである。

09/926317

DOCKET NO.: 214133US2PCT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Katsuya MURAKAMI, et al.

SERIAL NO.: NEW U.S. PCT APPLICATION

FILED: HEREWITH

INTERNATIONAL APPLICATION NO.: PCT/JP00/02361

INTERNATIONAL FILING DATE: April 12, 2000

FOR: PRODUCT WITH ELECTRICALLY CONDUCTING PORTIONS OF HIGHLY CONDUCTIVE RESINS, AND MANUFACTURE METHOD THEREOF

**REQUEST FOR CONSIDERATION OF DOCUMENTS  
CITED IN INTERNATIONAL SEARCH REPORT**

Assistant Commissioner for Patents

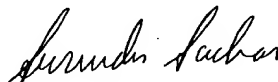
Washington, D.C. 20231

Sir:

In the matter of the above-identified application for patent, notice is hereby given that applicant(s) request that the Examiner consider the documents cited in the International Search Report according to MPEP §609 and so indicate by a statement in the first Office Action that the information has been considered. When the Form PCT/DO/EO/903 indicates both the search report and copies of the documents are present in the national stage file, there is no requirement for the applicant(s) to submit them (1156 O.G. 91 November 23, 1993).

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Marvin J. Spivak  
Attorney of Record  
Registration No. 24,913  
Surinder Sachar  
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47  
Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0008PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP00/02361	International filing date (day/month/year) 12 April 2000 (12.04.00)	Priority date (day/month/year) 12 April 1999 (12.04.99)
International Patent Classification (IPC) or national classification and IPC H01F 5/00, 5/06, H02K 3/50, H01M 8/02, B29C 45/16, B29L 31:34		
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 12 April 2000 (12.04.00)	Date of completion of this report 13 November 2000 (13.11.2000)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

ational application No.

PCT/JP00/02361

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims	3-13	YES
	Claims	1-2	NO
Inventive step (IS)	Claims	3,5,9,10	YES
	Claims	1-2,4,6-8,11-13	NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims		NO

**2. Citations and explanations**

**Claims 1-2**

Document 1 [JP, 11-97270, A (TDK Corporation), 9 April, 1999 (09.04.99); entire text; Fig. 1] discloses a coil for which the conducting part is made of a mixture of a conductor and a resin or the like and formed into a helical shape.

**Claim 4**

Document 1 discloses a coil for which the conducting part is made of a mixture of a conductor and a resin or the like and formed into a helical shape. Moreover, it is considered that it would have been easy for a person skilled in the art to apply the art of claim 1 to the coil of something like the stator or rotor of a motor.

**Claims 6-7**

Document 2 [JP, 6-333580, A (Mitsubishi Heavy Industries, Ltd.), 2 December, 1994 (02.12.94); entire text; Fig. 1] discloses a fuel cell separator that is composed of a conductive resin or the like and for which holes for the inflow and outflow of a reacting gas and grooves along which the reacting gas flows are formed on both faces. Moreover, it is well-known art in the technical field in question to use a fuel cell separator with an electrolyte sandwiched inside.

**Claim 8**

Document 3 [JP, 5-269786, A (Toshiba Chemical Corporation), 19 October, 1993 (19.10.93); entire text; Figs. 1-8] discloses a manufacturing method for a long conductive molded item in which a thermoplastic resin containing conductive fibers and a low-melting-point metal is injected into an injection molding die and is then hardened to form a conductor.

**Claims 11-13**

Document 3 discloses art in which a conductor formed from a thermoplastic resin containing conductive fibers and a low-melting-point metal is covered with an insulating layer.

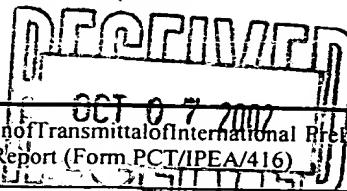
Document 4 [JP, 10-103191, A (Aisan Industry Co., Ltd.), 21 April, 1998 (21.04.98); entire text; Figs. 1-2] discloses a fuel distribution pipe, which has a connecting part that is electrically connected to an external terminal, and for which a conducting member is integrally housed in a housing.

It is considered that it would have been easy for a person skilled in the art to apply the art of document 3 to the structure of the fuel distribution pipe of document 4, thus covering a conductive resin with an insulating layer and forming the conducting part integrally with the fuel distribution pipe.

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference K-3Nano	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP00/06761	International filing date (day/month/year) 29 September 2000 (29.09.00)	Priority date (day/month/year) 19 November 1999 (19.11.99)
International Patent Classification (IPC) or national classification and IPC A61K 47/34, C08J 3/02, C08G 69/40, B01J 13/00// A61K 48/00, C12N15/88		
Applicant NANOCARRIER CO., LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 24 April 2001 (24.04.01)	Date of completion of this report 11 January 2002 (11.01.2002)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

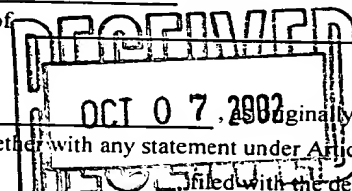
International application No.

PCT/JP00/06761

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_



### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP00/06761

## IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

See supplemental sheet for continuation of Box IV. 3.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☐ all parts.
- ☐ the parts relating to claims Nos. \_\_\_\_\_

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: IV. 1.

Claims 1-6 relate to methods for stabilizing polyion complex micelles in general and Claims 7-11 relate to specified copolymers and to polyion complex micelle compositions containing said copolymers. The technical feature of the former inventions is stabilization of polyion complex micelles in general, which embraces micelles unrelated to the specified copolymers which constitute the technical feature of the latter inventions. Therefore the technical features of the two groups of inventions are not the same and do not correspond, so that the two groups of inventions do not constitute a group of inventions so linked as to form a single general inventive concept.

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	6	YES
	Claims	1-5, 7-12	NO
Inventive step (IS)	Claims		YES
	Claims	1-12	NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

## 2. Citations and explanations

Document 1: Y. Kakizawa et al., "Antisense DNA naihou poriiion konpurekkusu miseru no kouchiku - SS ketsugou niyoru naikaku anteika kouka -", Kobunshi Gakkai Yokoshu, September 1999, Vol. 48, pp. 2989-2990

Document 2: Atsushi Harada et al., "Novel polyion complex micelles entrapping enzyme molecules in the core: Preparation of narrowly-distributed micelles from lysozyme and poly(ethylene glycol)-poly(aspartic acid) block copolymer in aqueous medium", Macromolecules, 1998, Vol. 31, No. 2, pp. 288-294

Document 3: EP, 844269, A1 (Kazunori Kataoka), 27 May 1998 (27.05.98) & WO, 97/06202, A1 & CA, 2229068, A & AU, 9666310, A1 & CN, 1192759, A & BR, 9610053, A & NO, 9705584, A & US, 5929177, A

The whole of Document 1 discloses block copolymers which are block polymers (PEG-PLL) bearing thiol residues represented by (I) in the claims, and a method for stabilizing polyion complex micelles by forming cross-linking disulphide bonds between the charged segments of said thiol residue-bearing block copolymer via said thiol

residues; therefore, Claims 1-5 and 7-12 are not novel.

Claim 6 relates to a method in which the copolymer is represented by (II) and (III), which is not disclosed in Document 1. However, the whole of Document 2 and Document 3, claims, disclose a block copolymers used like the aforementioned block polymer (PEG-PLL) in the formation of polyion complex micelles, and a person skilled in the art could easily deduce the application of the method in Document 1 in order to stabilize polyion complex micelles disclosed in Document 2 or 3, by forming thiol residue-bearing block copolymers represented by (II) or (III) and using the same.

Therefore, Claim 6 does not involve an inventive step.